NRCS
Natural Resources
Conservation Service

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Portland, OR 97232

West National Technology Support Center

FY2009 Report

A Message from the Director

I am pleased to present this report on FY09 activities. I think you will agree that it was an exciting year. All

conservation.

In particular, I want to draw your attention to six areas.

1.

underway.

2. We organized a successful workshop on sagebrush

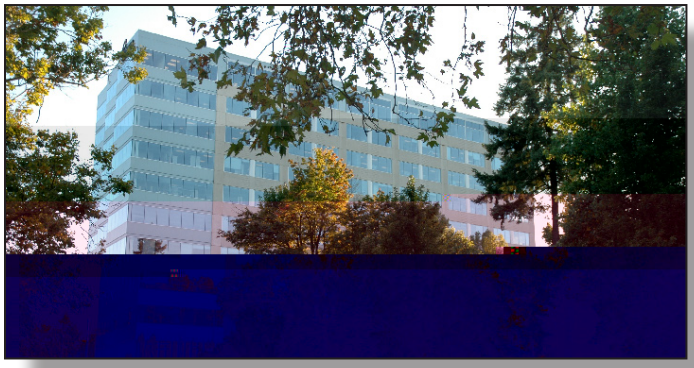
protect sage grouse.

3. We assisted a large number of States with pollinator conservation technology.
4. Several signi f cant projects were completed related to environmental compliance-including an advanced NEPA workshop attended by all States, a new CPA-52, and lots of ARRA-related activity.
5. We provided a signi f cant level of support to the

Initiative Team which is making great progress.

6.

and nutrient trading.



of f ce assistant. We currently have vacancies for our soil scientist and forester positions.

We are trying something new this year for our year-end report. For each discipline area, we have described the most signi f cant accomplishments and looked ahead to what we anticipate for next year. This has made this year's annual report much longer than our typical reports. Please let me know if you f nd this useful.

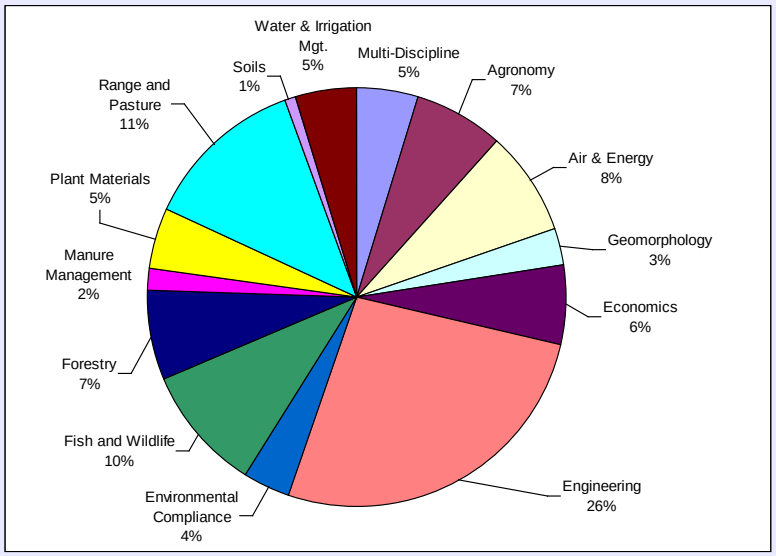
technology assistance to you, our customers. Please don't hesitate to contact our specialists. And please let me know how we can better serve you.

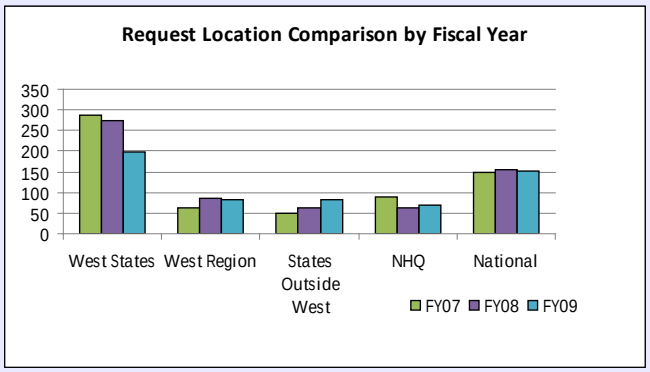
- Bruce Newton

Helping People Help the Land

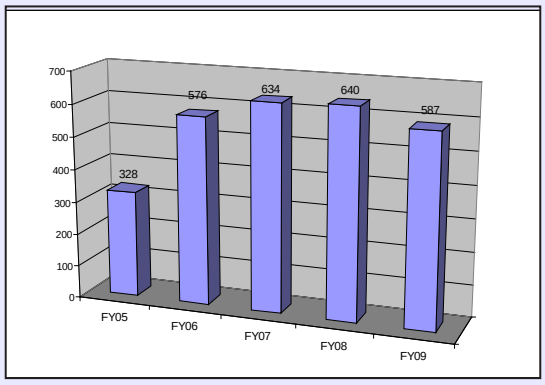
FY09 WNTSC Assistance Analysis

"All" includes both Core and Development Teams - Energy, Air Quality and Atmospheric Change, and Water Quality and Quantity





West States = Requests from Individual West State
West Region = Requests benefit multiple West States
National = Assistance benefits States across the US
NHQ = Request supports NHQ staff work



West Region State Requests By Fiscal Year

Alaska	2	12	8	3	11
Arizona	1	6	16	15	19
California	15	17	31	33	30
Colorado	5	16	19	23	31
Idaho	5	16	15	24	25
Montana	7	10	12	14	25
Nevada	5	11	16	16	15
New Mexico	3	17	15	17	23
Oregon	31	49	56	58	59
Paciýc Islands Area	9	18	26	16	14
Utah	2	15	25	23	20
Washington	11	26	27	17	35
Wyoming	2	11	20	14	16

Requests are those assistance projects that require more than 2 days of staff time and are recorded in the Assistance Tracker database. Team Members track and record the time spent on projects. For more information on projects, you may log into our Assistance Tracker System to see the projects and results; http://ssiapps.sc.egov.usda.gov/RequestTracker/Default.aspx. Please contact your West NTSC specialist or Russ Hatz, National Technology Specialist, at 503-273-2428 for further assistance.

WNTSC FY2009 Activities

The following information is the result of interviews with members of the West National Technology Support Center (WNTSC) in which they talked about their work in FY09 and what they see coming in the near future.

The WNTSC Core Team consists of seventeen specialists whose primary function is providing direct assistance and technology transfer to the Western States. Three National Technology Development Teams (Air Quality and Atmospheric Change, Energy, and Water Quality and Quantity) are also part of the WNTSC. Their staff may also provide direct assistance to States or work with a specific State in the process of developing new conservation applications; however, their primary function is developing new technology and tools for the Agency as a whole.

Highlighting key discipline areas, the stories start with the Center's Core Team. Due to retirements, the Team has vacancies in two key areas--Soils and Forestry--so those are not addressed in this year's report. Following the activities of the Core Team, you will find reports from the Center's three Technology Development Teams.

If you are interested in more details on the activities mentioned here or other efforts of the WNTSC staff, feel free to contact them directly. More information on requests for assistance can also be found in our "Assistance Tracker" database. For more information on or from our staff, please visit our website at: http://www.nrcs.usda.gov/about/ntsc/west/index.html.

Following the retirement of Tom Gohlke, the agronomist position remained vacant for several months. That changed when we hired two new agronomists. In May, Rick Fasching joined the WNTSC from Montana. In June, Giulio Ferruzzi joined the staff from Kentucky and they both began helping out the West States.

Ferruzzi spent some time assisting the Energy Team with their training on energy issues. His focus was biomass as a renewable energy resource which can also hold the soil in place. He also continued to be involved in RUSLE II development. The conservation planning tool is being revised and Ferruzzi is involved in evaluating and testing the section on pasture grazing to more realistically represent the scenarios found on our nation's farms and ranches. Additionally, he is continuing efforts on revising the national pest management standard and working with States on developing their standards to comply with NHQ policy. Ferruzzi sees major changes in pest management in the coming years as organic farming continues to grow. He is looking forward to working with States on training workshops with organic certiýcation organizations and improving pollinator training as a part of pest management and organic training.

Rick Fasching was busy with wind erosion and basic agronomy assistance to several States. One highlight was a soil quality session in New Mexico looking at nutrient management, soil quality, crops, etc. with NRCS employees and producers. NM NRCS is working to make soil quality the cornerstone of all agronomy-related decisions—a great idea, but complicated to implement. After the week-long session, and with better understanding between the producers and the conservation planners, Fasching helped them put in place the steps needed to do just that.

Rick also completed a precision agriculture National Technical Note that is in the process of being printed at NHQ. Rick is enthusiastic about the potential beneýts producers can realize by adopting precision technology as well as the major beneýts to protect the natural resources. He predicts that in the next ten years, precision ag technology will be the norm versus current methods of nutrient management. "It is exciting to be at the forefront of a technology that both beneýts natural resources and provides agricultural sustainability," Fasching stated. He sees next year's major efforts as implementing the new Wind Erosion Prediction System (WEPS), assisting States with the Manure Management Planner (MMP), and continuing a national effort to improve the way phosphorus is addressed in Conservation Practice Standard 590.

The Range Team, consisting of Pat Shaver, Jeff Repp, and Gene Fults, had a very busy year. Signiýcant effort went into Ecological Site Description (ESD) correlation, riparian ESD's, and training.

Training was the most signiýcant part of last year for Pat Shaver. Shaver provided State workshops on ESD's, rangeland health, and prescribed burning. Training on ESDs was attended by almost every State in the West. "Training is why I continue to work," said Shaver. He reported that one of the younger employees shared with him that 'We don't get enough of this type of training,' while they were in the ýeld for a recent session.

Pat Shaver discusses rangeland health with a class.

While training was a major part of his workload, Shaver notes that providing speciýc assistance to States was the primary accomplishment. "They (the States) requested the help and we were there to help them," he stated. Shaver has also been involved in the development of a national strategy for Ecological Site Descriptions and facilitated several workshops on ESD correlation across State borders.

When asked what he spent the most time on this year, Jeff Repp stated "Riparian ESDs." When asked what the most signiýcant thing he worked on was, Repp responded "Riparian ESDs." And when asked what he did this year that excited him about conservation, Repp again responded…" Riparian ESDs!"

Riparian ESDs deýne the expected mosaic of vegetation, wildlife, and habitat in an area when given the soil types, hydrology, and management. Riparian ESDs additionally incorporate þuvial geomorphology and changes in stream channel succession. This is a new and challenging application of the ESD concept. Jeff is working with several states to explore how to develop riparian ESD's and create models that could guide future efforts. Repp and the interdisciplinary team held several workshops with academics and other partners as well as two formal training sessions in NV and KS. Additional assistance has been provided to CO, MT, PA, ND, and OR with training and ýeld work scheduled there and in other States in the West and Central Regions. This has been a major and mult-disciplinary effort at the WNTSC with participation from WNTSC colleagues Barry Southerland (þuvial geomorphologist), Wendell Gilgert (biologist), and Kathryn Boyer (ýsheries biologist).

Gene Fults developed and delivered a multi-part Riparian Ecology course to the States via net meeting technology. This was very well attended (far exceeding the available phone lines) and received positive reviews. As part of the National Riparian Service Team, Gene also provided riparian assessment training to States from Texas to Alaska as well as provided training on pasture management. "I got excited this year when I got comments during a training session from newer employees as well as some more experienced employees that they ýnally realized how to read and understand conservation practice standards," Fults said. "They had been reading it from front to back and getting very confused. I just showed them how to break it down into purpose and criteria so they could understand the concept."

Gene also contributed to the effort to develop prototype riparian ESD's as part of the multi-disciplinary team. He also had the opportunity to provide assistance in the South Paciýc, examining the causes of bird population declines in the Northern Marianna Islands. "It was a great opportunity to see the meaning of ecology and the relationship between vegetative landscape and wildlife numbers," he added.

Riparian areas were the focus of training via the Internet.

Unusual for his discipline, Fults enrolled in the 3-week NRCS training course provided through the Soil Geomorphology Institute in Nebraska. Designed primarily for soil scientists, the course taught attendees to "look at more than just the 'cover' of the landscape, and to consider aspects of the 'cover' as indicators of various aspects of the resources. This training would be valuable for anyone working in range ecology," said Fults.

Training will continue to be a major part of Fults' work

in 2010. Work will continue on ESDs and States will continue to request assistance on pasture and range management. Gene will also work on literature review and the synopsis on pasture management for the Conservation Effects Assessment Project (CEAP). Ultimately, new speciýcations will emerge from that project and additional training will be needed.

Developing and holding an *Advanced NEPA Workshop* for all of the West States was a major highlight of the year for Meg Bishop, West NTSC Ecologist and environmental compliance specialist. NRCS had never done such training in the past. Bishop was pleased to provide this training to State environmental specialists so that they have the necessary information to assist their State Conservationist in making appropriate compliance decisions.

Working with individual States on speciýc issues is another important aspect of Bishop's efforts. The ARRA stimulus bill provided no shortage of compliance excitement. Meg also continued efforts to assist the West States create efýcient protocols to address compliance issues such as programmatic consultations and various types of consultation agreements. Key issues Bishop anticipates for the future include completing a long-term effort to revise the National Environmental Compliance Handbook and assisting the Conservation Delivery Streamlining Initiative Team as they develop a new business model for ýeld-level planning and contracting.

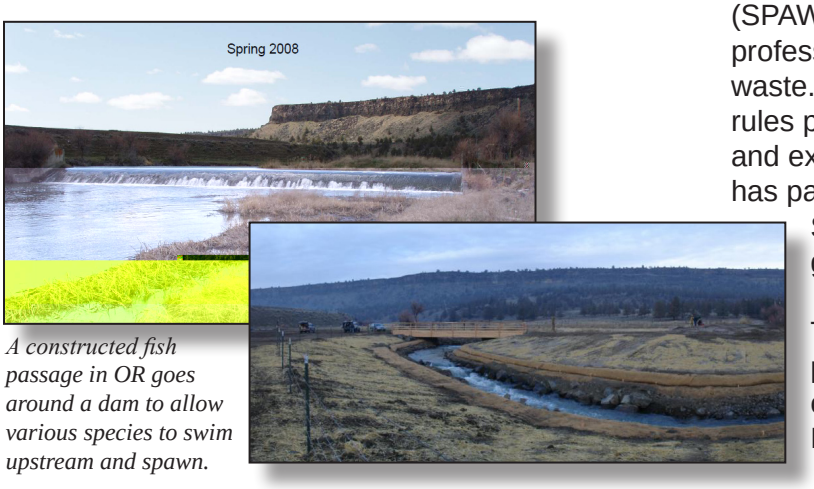
While much of Kathryn Boyer's time was spent on stream restoration training and project consultation, providing aquatic ecological expertise for the development of Riparian Ecological Site Descriptions (ESDs) was the most signiýcant FY09 activity in her thinking. Boyer is an enthusiastic member of a multi-discipline team working on developing the methodology for deýning ESDs. ESDs will provide conservation planners with additional data and expected criteria to use in developing management alternatives during the planning process. Boyer worked with the States of MT, NV, and CO to ýeld test the methodology being put in place. Additional Western States will be part of ýeld testing in 2010.

When asked what excited her about her role in conservation, Boyer responded that her work with

their habitat range," said Gilgert. "It was exciting to hear one of the workshop participants recognize that fact when he thanked the instructors for the class and stated he had 'learned so much and needed to go back and re-write the practice standard' for his State," Gilgert added. With over 18 types of sagebrush as part of the ESDs, recommendations are to treat large blocks of land in mosaics to promote the diversity of habitat. Discussions are also underway to develop a decision support tool to help in the planning process.

Teaching others about looking at animals as architects of their local vegetative communities has also been exciting for Gilgert this last year. His work with the ESD Team has helped formalize the role of wildlife as providing blueprints on the health of the local ecosystem. Wildlife presence or absence can be used in an ESD as an indicator of healthy plant communities and other animate and inanimate organisms as well as providing thresholds for the potential path to recovery or collapse of previously described ecosystems. Gilgert will continue to work with the West State biologists in developing ESDs for their States as well as continuing habitat assessments and promoting habitat for pollinators.

When asked about signiýcant projects last year, WNTC civil engineer Kip Yasumiishi immediately responded with "The Crooked River/People's Irrigation District Fish Bypass!" "Projects like this are why I became an engineer," Yasumiishi stated. ñI really could see a true environmental beneýt,ò he added. The project was time intensive with initial analysis, design, implementation, and follow-up to determine the stability of the aquatic habitat as the engineer designed a bypass to restore ýsh passage around a dam that has been in place for over 50 years. Salmon, steelhead, and trout species will be able to move upstream and return to spawning habitat they have been unable to use during the lifetime of the dam. The project was also an excellent demonstration of partnerships working together for the good of the land.



A constructed fish passage in OR goes around a dam to allow various species to swim upstream and spawn.

Additional efforts by Yasumiishi centered on training. Two major sessions covered the topics of Structural Engineering (UT and MT) and River Restoration (UT/OR). Both are areas that require multi-discipline teams to complete the work. Specialists from other disciplines have been members of the training team teaching the courses. Yasumiishi feels that increased training emphasis in areas such as soil mechanics and engineering basics will be important in the future as NRCS brings new engineering employees up to speed. With retirements looming, Yasumiishi would like to spend more time mentoring new engineers.

The past, present, and future of nutrient management was a signiýcant effort for Charles Zuller, environmental engineer. Zuller worked with a team on improving the Animal Waste Management (AWM) program for planning and designing manure management systems. A second-generation program was launched and is in use. As technical support lead for the AWM software, Zuller has spent many hours providing one-on-one assistance.

Serving as the technical representative on several Conservation Innovation Grants involving anaerobic digesters, Zuller looks to the future of nutrient waste efforts. By conducting training sessions on the use of the Soil-Plant-Air-Water Field and Pond Hydrology (SPAW) model, he helps NRCS conservation planning professionals with today's efforts to control nutrient waste. With new Environmental Protection Agency rules published, new software needs to be developed and existing standards need to be revised. Zuller has partnered with State specialists to insure that State standards are up-to-date and meet EPA guidelines.

The energy aspects of dealing with the by-products of manure management systems have combined Zuller's work with that of the National Energy Technology Development Team. One

A MT producer captures the methane as part of their manure managemetn plan.

Hutterite Colony in Montana recently installed a system to capture the methane from their manure management system to obtain carbon credits as well as capture the gas as an energy source. Zuller was part of that project and used it as an opportunity to provide training to conservation planners. He expects to continue to focus on energy systems including wind, solar, digestion, and thermo-chemical systems.

Micro-irrigation training was Peter Robinson's most signiýcant FY09 activity. To provide training to NRCS staff (beginning with the States of Oregon and Washington), Robinson spent much of the ýscal year researching the issues, developing training, then providing guidance on this technology that more efýciently and effectively provides water to various crops. His efforts also included working with producers and NRCS staff on irrigation scheduling—a practice that Robinson feels has the potential to really help farmers with managing time, dealing with limited water availability, and improving production.

When asked about the coming year, Robinson states that the integration of irrigation management and energy consumption will likely be the focus of his training efforts with States. "If we work to improve the energy efýciency of the pumps used for irrigation, we can have a considerable impact on reducing energy consumption for the landowner as well as have an effect on their carbon footprint," he said. According to Robinson, the average irrigation system electric-powered pump operates at about 48% efýciency. Improving that efýciency to 66% would both reduce energy costs to the producer and reduce the inputs contributing to greenhouse gases/climate change.

Robinson additionally worked on collecting and digitizing a vast array of technical information on irrigation management for an electronic *Irrigation Toolbox*. Permissions for reproduction have been obtained and the material is being packaged for distribution to States and other interested parties.

When Hal Gordon started FY09, he knew what he would be working on. In the ýnal year of a ñ3-year plan to implement payment schedules,ò ýnalizing the national payment schedule methodology and providing training to the States have been his major focus. "The project is impressive," Gordon states. ñIt is the ýrst time in NRCS/SCS history that we have had a nationally consistent cost data set with the same structure and format for all conservation practices."

Now that the States are seeing the advantages of having standardized cost data to work with, Hal is excited to start working on the ñbeneýts side" of the payment schedule. Data providing a scientiýc, defensible, dollar-beneýt for conservation practices with additional subjective information that can be more clearly deýned for each State will allow leadership at the national and state levels to accurately portray the positive results of NRCS conservation efforts on the land.

Gordon was also pleased to have the opportunity to provide training to several new employees this year. Working through the National Employee Development Center (NEDC), he taught the 'Economics of Conservation Planning' course which he has been involved with since its conception. "It meant a lot to be able to introduce economic concepts to new and learning conservation planners," Gordon added.

Coordinating work between the ten West Plant Materials Centers (PMCs) was the major focus of the year for Jim Briggs. Working with them to focus on new conservation plants and technology to support their use also resulted in closer coordination between the facilities. Briggs spent time fostering that communication through inter-Center studies looking at grasses for biofuels, native grasses for reseeding parts of the Great Basin Region, and the testing of a tropical legume as a replacement for the use of synthetic nitrogen fertilizer in much of the West.

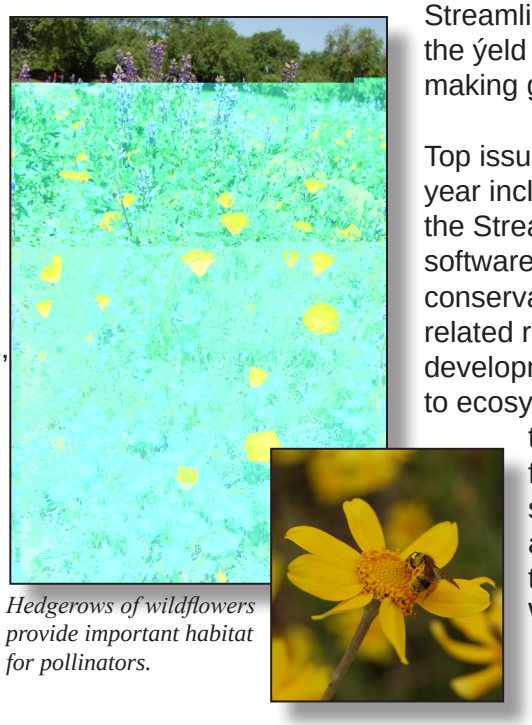
Core Team continued

Briggs worked with PMC specialists at the Centers and in State Ofýces to develop and distribute science protocols for growing, providing statistical analysis, and developing a regional cataloging of the work taking place and the plants under development.

A Sun Hemp planting at the NM PMC.

Other meaningful work for States included working with PMCs in their partnership with the USDA Agricultural Research Service, DOI Bureau of Land Management, and other partners to do a variety of work including obtaining speciýc plant measurements for use in ýeld ofýce-level, rangeland predictive models that are under development. When asked about the future, Briggs reported that work is underway on joint studies to tie the PMCs into the NRCS Programs national resource action plans for energy, air quality, cover crops to promote soil and water quality, and pollinator habitat. While every state may not have an in-state facility, PMC work is provided to surrounding States and is useful to all NRCS conservation planning professionals. And Jim Briggs is helping States make that happen.

We are fortunate to have Mace Vaughan working with us through a contribution agreement with the Xerces Society. In the past year, Vaughan and his associate, Eric Mader in Madison, WI, provided training workshops in nine States to help NRCS conservation professionals understand the diverse habitat needs of pollinators, especially crop-pollinating bees, and how NRCS programs can help incorporate that habitat into working landscapes. They also developed State-speciýc guidance documents such as technical guides, plant lists, habitat evaluation guides, and/or ranking criteria for pollinators for 20 States, including six in the West.



Hedgerows of wildflowers provide important habitat for pollinators.

Of particular signiýcance to Vaughan was being able to collaborate with the NRCS Plant Material Program on the development of their pollinator conservation strategy. "We are happy to be able to provide training, work with the PMCs, and help NRCS with the 'boots-on-the-ground' information planners need to successfully design and implement pollinator projects throughout the West," Vaughan stated. Projects at the Lockeford PMC in CA and the Corvallis PMC in OR are demonstrating how to incorporate pollinator habitat into a working lands setting. This effort and the support shown by leadership really impressed Vaughan. "Those efforts are indicative of an eagerness to develop the expertise to do more complex restoration and conservation work on the ground," he stated. "Coming from an outside organization, that's really exciting to see. We look forward to working with the rest of the West States," Vaughan added.

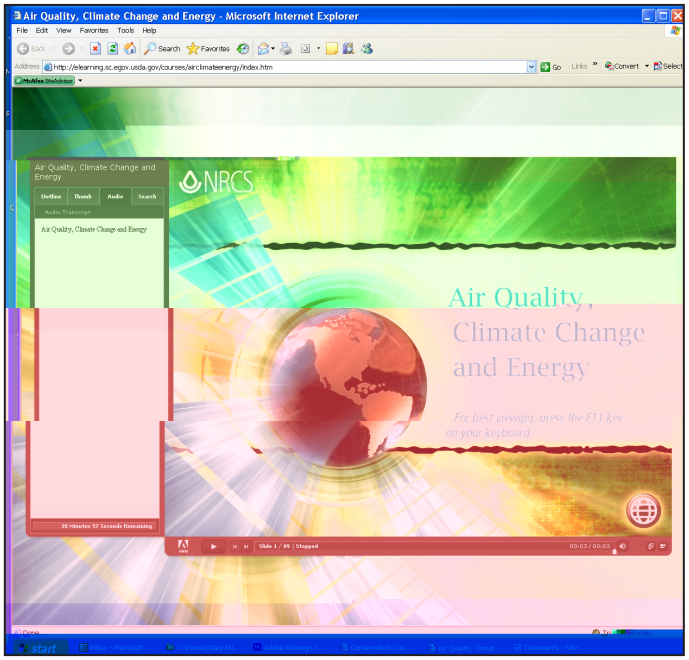
After the retirement of John Copeland and the move of Kathleen Dobler, Russ Hatz joined the Center this summer as our National Technology Specialist. This vague-sounding position is critical to the Agency's success. Hatz is responsible for supporting the Agency's technology infrastructure from an overarching perspective. He works directly with the States' technology leadership and with NHQ to develop and implement new policies and maintain the quality of our technology. One of Hatz' priorities this year was working with the Conservation Delivery Streamlining Initiative Team to redesign the ýeld business processes. That Team is making great progress.

Top issues that Hatz sees for next year include; continuing work with the Streamlining Team as they begin software development, implementing new conservation initiatives such as energy-related resource concerns, assisting in the development of technical material related to ecosystem service marketing, facilitating the adoption of technology resulting from CIG projects, facilitating support for organic agriculture, and providing continuing support to the West Region Technology Workgroup and Consortia.

NATIONAL TECHNOLOGY DEVELOPMENT TEAM ACTIVITIES

Air Quality and Atmospheric Change Team:

When asked about the most signiýcant work for FY09, the entire four person Air Quality and Atmospheric Change (AQAC) Team replied, “Getting the four Air Quality/Climate courses on AgLearn!” “Those courses have given us the ability to provide information and educate all of our employees through one national effort,” stated Greg Johnson, Team Leader. The four courses are “Air Quality, Climate Change and Energy,” “Air Quality Resource Concerns,” “Why Should We Care About Air Quality? ,” and “Greenhouse Gases and Carbon Sequestration.” The AgLearn courses are available in AgLearn for employees and on the web for anyone at http://www.nedc.nrcs.usda.gov/TrainingResources/ACE_webbased.html.



The “Air Quality, Climate Change, and Energy” Course is the initial requirement to take the 3 additional Air Quality courses available on AgLearn.

The Team provided a number of on-site, in-class AQAC training sessions in FY2009, including New England, the Southeast, and Washington State. The Team also provided smoke management training in conjunction with several Prescribed Burning classes.

Developing planning materials for ýeld ofýce conservation professionals was another important aspect of last year’s activities. The Team developed the planning criteria for Particulate Matter, Ozone Precursors, Greenhouse Gases, and Odors. Additional time was spent with the Conservation Delivery Streamlining Initiative Team to determine the easiest ways to incorporate air quality and climate issues into the NRCS national planning process. Taking those planning criteria and working them into the new NRCS conservation planning tool will be part of the work for the coming ýscal year ð speciýcally, developing a practical, usable technology to address air quality issues.

Technology efforts of the team included enhancement work on COMET-VR, a tool to estimate carbon sequestration associated with land management. A new version includes enhancements for agroforestry applications and nitrous oxide emissions. This further enhances COMET-VR’s capabilities to provide “full spectrum” carbon “credits” for producers in open markets. New efforts will also focus on a common user interface for COMET-VR and the Nutrient Trading Tool (NTT, from the Water Quality and Quantity National Technology Development Team). Other technology efforts included ýnalizing 3 new air quality practice standards; quantifying GHG beneýts of NRCS Programs (including EQIP and CSP); production of several new AQAC fact sheets for states; and ýnal work on wind input for the Wind Erosion Prediction System (WEPS) that is expected to be rolled out for agency use early in 2010.

Analyzing proposed EPA regulations for NHQ, working on developing 6 chapters on Air Quality for the National Engineering Handbook (NEH), and coordinating the activities of the USDA Agricultural Air Quality Task Force has also kept the Team busy.

Energy Team:

With the rise in fuel prices for growing crops and keeping our homes and businesses both warm and cool, energy continues to be a hot topic. Stafýng was an issue for the Energy Team when one staff member retired and left Team Leader Stefanie Aschmann as her own Team of one. The advertising process took place and Curtis Framel was hired to begin working this fall.

Solar panels provide energy to pump water to livestock.

The Energy Team is doing its part to educate NRCS employees and our nation's farmers and ranchers on what they can do to reduce their energy costs while efýciently and effectively operating their business. After working for over a year, they successfully launched several Energy courses available to NRCS employees through the AgLearn network and to other interested parties through the National Employee Development Center's website. Those courses tied in to additional training that was developed for NRCS state energy contacts and other NRCS employees. Three sessions were delivered in cooperation with the Air Quality and Atmospheric Change Team in Vermont, Washington, and North Carolina. A fourth session was held in Madison, WI for energy specialists in the Central Region. The ýfth session was provided as part of the National Organization of Professional Hispanic NRCS Employees (NOPHNRCSE) annual training conference. The sessions developed interest in the six energy and air quality courses currently posted in AgLearn. The ýrst course, ñAir Quality, Climate Change and Energy", is a prerequisite to the other courses and is part of both the energy and air quality curriculum.

When asked what activity she was proud of getting done last year, Aschamann replied, "Getting the AgLearn classes up was a major achievement, but I'm also excited about getting the Energy Sharepoint site active for all of our employees!" "Training materials, fact sheets, and other reference materials will also be posted there as they are completed," she added. ñThat will make it easy for our folks in the ýeld to ýnd what they are looking for."

Work for next year includes more reference materials and Fact Sheets, as well as developing some practice standards to provide guidance to our conservation ýeld professionals. Three additional fact sheets are already in production and should be ready the ýrst of the new year. Planning tools are next on the list. "I'm pleased to have Curtis on board and get going on some of these things for next year," Aschmann added.

Water Quality And Quantity Team:

A signiýcant amount of the Water Quality and Quantity Team's efforts are involved in developing tools to make the NRCS planning process easier, efýcient, and effective. "That's been an extremely successful area for us," stated Shaun McKinney, Team Leader. "We currently manage over 45 applications affecting water quality," he added. "These tools help the ýeld ofýce conservation planners develop sound alternatives for the producer. We strive to provide the ýeld with the best technology and scientiýc tools for water quality and quantity," McKinney added. Some of those tools are in the process of being updated and some are being improved with additional data added to their interface. The Team works closely with ITC (our computer folks) to insure that the applications will work seamlessly and accurately within the NRCS computer system. Some of those tools are the Windows Pesticide Screening Tool (WinPST), the Nutrient Trading Tool (NTT), the Soil-Plant-Air-Water Field and Pond Hydrology Model (SPAW), Animal Waste Management Model (AWM), Hydrology Engineering Center River Analysis System (HEC-RAS), Technical Release 20 Computer Program for Project Formulation Hydrology (WIN-TR20), and more.

Many of the applications have been developed in partnership efforts with organizations such as the Agricultural Research Service, Environmental Protection Agency (EPA), and other state and local organizations. In fact, EPA signed an MOU with NRCS and provided $50,000 to complete work on the NTT tool. That tool is now being coordinated with COMET-VR to consider both air and water quality. The two applications provide landowners a way to measure the nitrogen and carbon savings from installing conservation practices. Those savings may be sold,

traded, or banked in certain areas of the United States.

Training was also a signiýcant part of the Teamîs work in the last ýscal year. Over 40 training sessions were held across the country, including courses on water quality, stream restoration, Win TR-20, salts, and irrigation. With over 30 states involved in the training, there is a signiýcant amount of work involved in developing the guidebooks for the classes and for States to use after the training and from the Internet. Four User Guides have been developed and are available on the web.

Training was also provided during the process of restoring 8,800 ft of meander to the Santa Clara River in UT. The project is a partnership effort after signiýcant þooding in 2006 and 2008. Providing on-site training and assistance to local NRCS employees and partners, the stream and the þoodplain were rebuilt, restoring ecological-based values for the stream, the þoodplains, and the ýsh and wildlife habitat.

The Water Team has also been involved in some major rewrites of policy on nutrient management and pest management this past year. They coordinate with the various Centers and National Headquarters to insure accuracy, efýciency, and effectiveness in the policy direction and delivery. The Pesticide Property Database (PPD) was updated this year in coordination with EPA. This is the most extensive database of the properties of pesticides and their interaction with soils. The resulting risk assessments will help producers make informed decisions. In addition to human and aquatic risks, we are also exploring adding pollinators risk.

FY2008 brought a new administration and new appointees in many of the USDA positions. The Water Quality and Quantity Team was involved in brieýng many of those new members on the issues of water as well as the efforts taking place through NRCS to improve and conserve water quality and quantity. The Team has also been involved in the Conservation Delivery Streamlining Initiative and provided input as they look at the future of conservation planning in NRCS. The Conservation Effects Assessment Project is a major partnership effort by several USDA agencies as well as other national, state, and local agencies and organizations to quantify the environmental effects of conservation practices. Several members of the Water Quality and Quantity Team have been involved in investigation and research for the two main components—a national assessment and watershed assessments—that will be used to estimate impacts of conservation practices on water quality, water quantity, and soil quality.

When asked what might be coming in the next couple of years, the Team had several issues they felt would be front and center. Animal was pla0ity main com1 1 Tf11 0 0